

**Learning To Teach Collaboratively:  
The Use of Subject Pairs in the School Practicum.**

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**Abstract**

The dominant models of initial teacher preparation have relied primarily on a school-based practicum where a single student is placed with a single 'cooperating teacher' or 'mentor'. This paper reports on a number of research projects of teacher preparation at the secondary level suggesting that placing student teachers in subject pairs can be more conducive to effective professional learning than placing them individually.

## **Introduction**

The dominant models of initial teacher preparation in many countries have been built around a university- or college-based theoretical input and a school-based practicum. In the practicum it has been common practice to place a single student in a given subject area with a single ‘cooperating teacher’ or ‘mentor’. Thus Bullough et al (2003), drawing on research from Europe and North America, note that this pattern has ‘remained little changed for 50 years’. However, recent developments in the United Kingdom and elsewhere—some of which are described in this special issue of the *Canadian Journal of Educational Administration and Policy*—have seen an increased emphasis placed on the notion of partnership between schools and universities. They have also seen a growing expectation that in postgraduate preservice courses, two thirds of a student’s time be spent in schools. These changes have led to the emergence of a new and expanded mentoring role for teachers and a focus on collaboration between university-based tutors, mentors and students. As a result, there is now a considerable body of literature drawing on research into mentoring and the use of collaborative practices to support student teachers’ learning (Arthur et al. (1997), Furlong and Maynard (1995), Haggard et al. (1993), as well as [Youens & Bayley](#), [Coyle](#), [Serebrin & Rhz](#), in this issue).

There have been parallel developments in teacher education in many other countries. Thus, in the United States, there has been a focus on mentoring as a means of supporting beginning teachers and helping to reform schools (Holmes Group 1990; Little, 1990). In recent years, as well, studies of mentoring on a variety of programs have been reported from across the world (e.g Romania (Ciascai, 2001), Zimbabwe (Mtetwa and Thompson, 2000), Scotland (O’Brien and MacBeath, 1997) and Australia (Long, 1997). Comparative studies of practice in different countries, such as Wang (2001), have identified a number of issues to consider in the design of effective mentoring programs and these have clear investment implications. However, such investment has often been lacking. Thus Pierce & Miller (1994), looking at the implementation of mentoring programs in the United States, reported on the pressures on faculties in several states to reduce funding for work with schools. Other studies show that the school-based mentors themselves are often given little time, compensation or recognition for their efforts (Sorensen et al, 2002; Wynn & Kromrey, 1999), making it difficult to develop the collaborative practices advocated. This article examines an alternative to the dominant model, based on placing students

together as a subject pair during the practicum, and argues that such an arrangement provides benefits for the student teachers, mentors and school as a whole.

In considering changes to initial teacher education it is important to put these in the context of developments in teachers' work in schools and more general issues of what constitutes teacher professionalism (see [Hall](#), [Fisher](#), [Piquemal](#), and [Seifert](#), in this issue). Parallels can be drawn between the recent changes in initial teacher education outlined above and whole school initiatives aimed at developing collaborative practice. Thus in-service training and professional development courses linked to school improvement have included an increased emphasis on teachers learning from each other through explicit shadowing and coaching arrangements (MacGilchrist et al, 1997; Joyce and Showers, 1988). At the same time, the work of many concerned with school improvement has led to the identification of a link between school effectiveness and staff collaboration. This suggests that a characteristic of effective schools is a culture of collaboration and in such schools teachers' own professional learning is taken as seriously as pupils' learning (Rosenholtz, 1989). In line with this, MacGilchrist et al (1997) typify an 'intelligent school' as one where a culture of learning is seen as fundamental and argue that 'collegial intelligence', the capacity for staff in particular to work together to improve their practice, is an essential characteristic of such an intelligent school. There are obvious parallels here to the social constructivist approaches promoted in initial teacher education and the idea of a school consisting of a community of learners.

The focus on developing collegial school structures seems at odds with the dominant training model, which places students singly in schools with the hope that 'as quickly as possible, the student assumes complete responsibility for classroom instruction and management and, while soloing, "practices" [sic] teaching' (Bullough et al., 2003 p. 57). Such a model seems unlikely to promote collegiality. However, different practices have emerged in some partnerships in England, with paired placements in subject areas used systematically as part of the course. The most notable example has been the Oxford Internship Scheme (Benton, 1990), where paired placement have been the norm since the end of the 1980s and collaborative practices are promoted. However, most of the research on the practicum in the UK has tended to focus on collaboration between individual students and mentors or other experienced teachers, with little attention given to the possible benefits of peer learning through paired placements. It is this

rather neglected area which is examined in this article. The analysis draws mainly on some recent research into paired placements in a number of partnerships in England, which developed following a detailed study into attitudes and practice in one partnership in the South East of England (Sorensen et al, 2002). However, researchers in North America have also been arguing for a change in the practicum to make much greater use of paired placements (Bullough et al, 2002) and there is recent research to support this (Manouchehri, 2002; Bullough et al, 2003). Such evidence will also inform the arguments presented.

### **Theoretical Framework**

There has been much written about the social processes involved in learning and it is important to draw on these in examining the possible benefits of paired placements. Looking at children first, there is a considerable body of evidence linking the cognitive development of children to peer interactions. It also appears that the equality of a peer relationship is more conducive to effective learning than the unequal relationship between an adult and a child (Rogoff, 1999). Further arguments suggest that children develop a deeper self-knowledge through this engagement with others (Bandura, 1986). Other researchers have stressed the importance of others in the development of self across the age range (Maslow, 1970). This social constructivist framework underpins much of the work on mentoring, with a particular emphasis on the importance of discourse in the promotion of learning (Vygotsky, 1978, 1987). Such work would seem to support arguments for the use of paired placements and an examination of how far these ideas may be applied to student teachers' learning in schools has formed part of the research reported in this article.

There are other issues that can arise specifically in relation to workplace learning. Lave and Wenger (1999) have described some of the 'socio-cultural practices' contained in the workplace. The impact of such practices on the students, as well as that of the students on the workplace, is likely to be influenced by pairing. Thus whilst studies such as Field and Philpott (2000) have reported on the beneficial effects of student placements per se on school culture, it can be argued that the practice of pairs of student teachers working in a collegial manner may have a further beneficial impact. It may also be the case that the students working as pairs develop more confidence in bringing new ideas to bear on the workplace thus helping to avoid the risk of

‘having novices learning teaching practices that do not reflect quality teaching’ (Wang, 2001) where mentoring is of poorer quality. Thus teacher educators are not always in a position to place students teachers where they wish and it is important that mechanisms are in place to avoid an induction into a culture of poor practice.

The arguments for the use of pairing also draw on Schon’s (1987) ideas about initial professional training and the emergence of a reflective practitioner, with ‘a practicum’ (in this case a teaching practice) providing the context for reflection and learning from experience. In looking further into such issues, Loughran (2002) has stressed the importance of providing opportunities to reflect on practice ‘through others’ eyes’. It can be argued that a peer may be able to act as one such pair of eyes, thus providing further support for professional learning. Support for such arguments can be found in research into the use of coaching (involving mutual observation and peer support) as a tool for the professional learning of in-service teachers, which shows that approaches involving peer learning are very effective (Joyce and Showers, 1988). There has also been very strong evidence that school improvement is accelerated when staff development programs involve teamwork and where the school draws on ‘critical friends’ (see, for example, Fullan, 1993; Joyce, Calhoun and Hopkins, 1999; Brighouse and Woods, 1999). It follows logically from this that it is important to embed collaborative practice in initial teacher education as well if newly qualified teachers are going to work effectively with colleagues in the future. Further, paired placements provide the opportunity for students to develop as ‘critical friends’ to each other during their training period.

Considerations of the changing nature of teachers’ professionalism are also important in considering why paired arrangements might be appropriate. Thus Hargreaves (1999) has identified a ‘postmodern professionalism’ which requires of teachers to enter into a diverse range of partnerships, including those with groups and institutions beyond the school. Further to this, Hargreaves and Fullan (1999) have argued for the importance of the role of mentoring as a force for developing such professionalism and in characterizing a new formulation of mentoring, have argued that mentoring should move from ‘hierarchical dispensations of wisdom to shared inquiries into practice’. The use of paired placements in initial training, working in a collaborative manner with mentors, would seem to be one way of helping to move this vision forward.

## **Background To the Research on Paired Placements in England**

In view of the limited research into the use of paired placements in England a series of linked research projects have been undertaken across six university-schools partnerships. A range of hypotheses have been developed and used as a starting basis for the research (Sorensen et al, 2002). However, the broad contention has been that the use of paired placements can support the learning of the students and have a positive impact on the schools in which they are placed. In order to explore these hypotheses the views of tutors, mentors, newly qualified teachers and students on the use of paired placements and different forms of collaboration have been sought and the practices taking place in schools have been examined.

The data has been gathered using:

- questionnaires given to mentors and students across partnerships,
- structured interviews, with student teachers, newly qualified teachers, subject mentors, coordinators (managers with a whole school remit for initial teacher education) and university tutors,
- focus groups of university tutors and mentors,
- case studies of particular schools,
- video work with pairs of students on school practicum.

The original research within a partnership in the South East of England involved professional mentors, subject mentors and students in over ninety schools, through questionnaires, case studies, focus groups and structured interviews. Further research in five other university-schools partnerships has used some or all of these research methods in seeking to explore particular aspects of paired placements.

The data collected through the structured interviews, focus groups and case studies has been analysed in a qualitative manner. The emphasis has been on elucidating the interactive processes occurring, with the intention of informing good practice. The questionnaires have been analysed using simple statistical tools. Here the emphasis has been on determining current practice and attitudes.

As part of the studies a framework was developed for considering some of the practices identified. This is an adaptation of Field and Philpott's (2001) appropriation of Maslow's hierarchy of needs (see [Appendix 1](#)). The intention here was to see how far the higher level needs in such a hierarchy could be met through peer support. There has also been further work examining the way in which different types of collaborative approach may be appropriate for different stages in student teacher development. The research has used the Maynard and Furlong (1995) model of progression, with a view to developing a framework for mentors to support pairs of student teachers during the practicum.

## **Findings**

### ***Reasons for Using and Taking Pairs of Students***

In some partnerships paired placements are used as a norm at particular points in the practice. In such partnerships there has usually been an initial sharing of the rationale for this and some training for mentors. However, even in these cases there has been little detailed attention paid to planning for the extra collaborative opportunities that can arise from pairing. In other partnerships, where pairing is not the norm, any preparation has depended largely on individual tutors or mentors and this has usually been fairly limited. It is interesting that most tutors in the partnerships studied are positive about the use of paired placements, even where they themselves have few such placements. Mentors, however, are much more mixed in their views. However, for those mentors taking pairs, two main reasons for having them have tended to predominate: the mutual support that the pairs provide each other and 'because the university asked us to'. At the very best, then, many mentors had only considered lower level needs and opportunities, in terms of Maslow's hierarchy, in the initial planning stages and few tutors had systematically promoted the further collaborative opportunities possible.

### ***Learning Opportunities and Their Effectiveness***

A broad range of learning opportunities has been examined through the research. The initial research in southeast England examined a range of collaborative practices and compared mentors working with individual students and those working with pairs. Subsequent studies in other partnerships have identified further forms of collaboration which may support students' learning

and these have also been explored in the research. The list of practices examined is included in [Appendix 2](#). However, it is important to note that each of the practices can have a variety of different foci and different benefits have been seen to arise from collaborations where the pair work on their own as compared to with a mentor or with another teacher.

The data shows that nearly all mentors and students view all forms of collaboration as useful. However, in some partnerships or subjects within a partnership where mentors had pairs there were relatively few examples of involving them *together* in collaborative practice even though such mentors often viewed the effectiveness of collaborative teaching more highly than those with single students. Those mentors who have not had a pair of students tend to be uncertain as to whether pairing is an effective strategy for supporting learning. This may not be surprising given the lack of discussion or training outlined earlier. However, where training or awareness raising focused on paired placements takes place, there is evidence that more collaboration does result and positive benefits accrue.

### ***Psychological and Emotional Support***

In all the studies this category has provided the most consistently positive responses from mentors and student teachers. The mutual support, reassurance and day to day empathy are considered the most positive reasons for placing students in pairs. In many cases students said that they would not have got through the program without this support!

Pairs 'not getting on' because of conflicting characters and personalities is an issue that has been mentioned by a number of students and mentors. However, the cases where this has been a problem seem to be very small, and where issues have arisen they have usually been dealt with through negotiation with the mentor. One mentor summed up the feelings of a number of mentors and by suggesting that the issue of whether or not student teachers 'got on' was irrelevant, as collaboration should be placed on a professional basis and in this sense collaboration should transcend 'like and dislikes'.

### ***The Impact of Pairing on Student Learning***



Impact on learning is clearly greatest when students are treated as a pair or they themselves decide to use the opportunities for collaboration. In such cases there is evidence of: sharing ideas and resources; learning from someone who has different skills; taking advantage of opportunities to develop a variety of approaches to teaching and the value of constructive professional dialogue. In line with this, many students and mentors in different partnerships have highlighted the benefits to subject knowledge development resulting from paired arrangements. Thus where pairing has been most successful, students and mentors have reported on important gains across the standards required for qualified teacher status through the process of collaborative practice. In such cases the higher levels of Maslow's hierarchy have been reached. However, such gains have often resulted from arrangements developed by the pair themselves, rather than formal structures set up by the university or school.

The majority of students in all partnerships are positive about the impact of pairing. A few students feel uncomfortable in a pair. Some are concerned about treading on each other's toes, and the pressure of offering constructive advice to fellow students. A small number feel that they could have learned more on their own. However, it is interesting that these sorts of reactions tend to disappear in schools where a collaborative culture is the norm and even where it is not, most students can see the advantages of collaboration.

Where student had worked together in the classroom they spoke highly of the opportunities provided. Many found that the feedback from each other was very beneficial, especially as it avoided the judgmental threat that could be associated with that received from mentors and tutors. It also allowed them to feel much better prepared for meetings with tutors and mentors. In short, the discussions about teaching and learning they had with each other were highly valued and gave them the confidence to speak positively in meetings with mentors. Mentors working with students operating in this manner commented on how much easier it makes their job, with students supporting each other rather than always looking to the mentor and coming to meetings fully prepared. In this sense it has been argued that two students are less work than one – a very surprising assertion for some mentors who have never worked in this way!

### ***The Learning and Professional Development of Mentors***

The main focus of this article and much of the research has been on the professional development of the students. However, the impact on the mentors themselves has also been examined. This has produced some points, especially in relation to the issue of collaborative cultures. Thus, whilst some mentors do not necessarily feel that having a pair of students has any greater impact on their professional development than having a single student, there is a recognition by some school coordinators that the pairing model can provide a framework for professional development in their own school. In a few cases schools have recognized the value of such models as a vehicle for change within the school. There are also schools where the collaboration between the students was perceived to have led to more collaboration within the department. Further, in some schools it has been noted that the students who had trained as pairs continued to value collaborative approaches and were more likely to try out new teaching strategies. Such findings are in line with the arguments of Hargreaves and Fullen (1999) and Field and Philpott (2000) made earlier in the article.

### ***Gains for the Pupils***

In schools and partnerships where there is little use of paired arrangements, mentors and school coordinators tend to be very concerned about the possible disruptive impact of pairs on pupils' learning. In schools using pairs some concerns do remain. However, where planning for pairs had occurred, they tended to disappear and a greater emphasis placed on the benefits of such arrangements for pupils. Thus, many mentors and students commented on the opportunities provided for greater differentiation and attention to individual needs and the improved quality of work produced by pupils. The feedback received from pupils in the cases where pairs used team teaching opportunities indicated that they were not always sure why they had two teachers but even in such cases they usually felt it was better to have more than one in the room! Where the rationale was explained, pupils were almost always positive and valued the attention of two or three adults.

### ***The Assessment of Student Teachers***

Most mentors feel that hosting two student teachers (whether or not they are treated as a pair) helps with judgments about targets and gradings. Some have expressed worries about the

possible detrimental effects of comparing students, but their opinions have been balanced by those who consider access to constructive comparisons to have been helpful. Again, the more collaboration taking place, the more constructive the use of the assessments given.

### ***Other Issues***

Where deliberate planning for pairing has taken place there are sometimes further mechanisms being used to share good practice. Thus within a school coordinators were running meetings for mentors (and in one or two cases students) which focused on the collaborative practice of working with pairs. This included cross-curricular work in some partnerships. There were also opportunities for mentors to observe each other and share good practice. In a few cases this had gone further, with mentors able to visit other schools to observe and learn from other mentors. As an example, a PE tutor working on collaborative practice to help develop subject knowledge across the six areas of experience within PE had promoted this with mentors. Those not keen were encouraged to visit those who were using paired placements to see how this might be implemented. In one case a PE mentor had gone on from being a subject mentor unwilling to use such opportunities to become a coordinator convinced of the advantages and promoting the use of such placements across subjects.

There was also evidence from discussion with mentors in schools using paired placements that the schools involved had a strong investment in collaborative work. As an example, they were using peer observations in appraisal or other whole school approaches to development.

## **Case studies of effective practice**

### ***Case Study 1: A School with a Number of Paired Placements***

School A is an average-sized, mixed comprehensive in Central England, accustomed to taking approximately eight teachers each year on the main practicum, as well as some for their first school experience, with pairs often placed in three subject areas.

Sue and Sara were placed together as a pair of students teaching Modern Foreign Languages (MFL). As part of their timetable they were given a joint group of 11-12 year olds. A range of

collaborative strategies was used with the group during their practice. These included: joint planning (as a pair and together with their mentor), shared resource development, team teaching and joint evaluations. They also team-taught together with the mentor. Both talked enthusiastically about their collaboration. It had allowed them:

- to learn different approaches from each other and develop a wider range of strategies for use with the group, thus providing the pupils with a much more varied experience;
- to develop class management strategies with less pressure through shared responsibility;
- to give pupils more individual attention through varying their roles in the lesson e.g. one takes the teacher role, the other that of the teaching assistant; splitting the class and teaching them as smaller groups; one dealing with a small group/individual with particular needs whilst the other teaches the rest;
- to give each other constructive feedback in a non-threatening manner as both had responsibility for planning and neither had a judgmental role, unlike a tutor or mentor (and where team teaching with the mentor all three were involved, so judgements were also shared, reducing threat);
- to prepare better resources through sharing the load.

Looking overall at the practicum, both students commented positively about the emotional support they had given each other and how important this had been throughout. In this sense they were typical of the comments made by many students in relation to the lower levels of Maslow's hierarchy. The support for reaching the higher level needs, in terms of pedagogical subject knowledge, had been less important early on but had developed as the practicum proceeded. Both had valued the opportunity to share difficulties together first, without either the mentor or tutor present, and being present as a pair in mentor meetings (other than where personal profiles were being completed) had given them more confidence. Their mentor noted how well prepared they were for weekly progress meetings, solving many small problems in advance and coming well focused on issues of teaching and learning. This had made his work as a mentor easier than having a single student. The coordinator at the school was similarly positive, noting how well the whole cohort had worked together, both as subject pairs and across subject boundaries. Interviews with other students and mentors at the school confirmed these positive judgements.

Video recordings of both the MFL and the science pair team teaching showed a variety of collaborative strategies being used linked to individual needs. As an example, the science pair had split a group they shared during revision leading up to exams. The purpose was to share the preparation burden for the initial modeling of different revision strategies, support pupils in determining strategies for revising according to their preferred learning styles and then run the split group in a manner which included a much more differentiated approach to learning.

It is interesting to note that neither tutors nor mentors had given the student teachers a lot of specific preparation for the paired placement and students felt that they would have made even better use of the collaborative opportunities if this had occurred. The school is now committed to developing practice further, drawing on the research within the partnership.

### ***Case Study 2: A Focus on Subject Knowledge Development***

Rachel and Guy, a pair of physical education students with very different subject strengths, were placed together in a mixed comprehensive in the South of England. They had separate mentors but sometimes met together with one or both of them. Rachel was strong in gymnastics, swimming and dance, whilst Guy's main strengths were invasive games and racquet sports. During the practicum they worked together in preparing lessons for different year groups. The lead in terms of preparation and teaching of a particular area of experience was taken initially by the specialist, allowing the other student to develop their pedagogical subject knowledge in a less threatening manner. Later on roles were reversed and they were able to complete shared evaluations of progress.

The students concerned had been prepared for working as a pair by the tutor and this had been fully discussed with the mentor. Both students had found this a very good way to support their subject knowledge development and the mentors working with them commented on how this had taken the pressure off them during the practicum. At the end of the course both the students felt that the paired arrangement had enabled them to feel better prepared, especially where initial subject audits had indicated weaknesses. Summative assessments showed that they had met the standards across the areas of experience at a good level.

This case study shows that a specific focus on particular needs can benefit both student teachers and school departments. It also shows that proper planning for paired placements can support pedagogical learning. Thus, whilst the students were keen to mention the emotional support given, in line with most other studies, they put a greater stress on higher order skills than most students who hadn't had the same preparation for working as a pair.

### ***Case study 3: A Large Comprehensive with a Strong Investment in Paired Placements***

School B is a large comprehensive in Central England. The school takes between 10 and 14 students a year on the main practicum and a similar number on the shorter practicum earlier in the training year. In addition there are a number of teachers in the school who have worked as pairs in their training year, including four newly qualified teachers during the year of the research project.

The school takes paired placements in the six subject areas offered through the partnership but practices vary depending on the subject area. Some pairs of students have separate mentors and others have a single mentor. The coordinator takes a very active role in working with the mentors and there has been some planning for working with pairs of students. The outcomes of the studies conducted in the school show that:

- mentors working with pairs of students believe that it is a more effective way of working, as well as being more efficient;
- the student teachers who have worked closely as pairs have felt that there have been gains from the experience in terms of all aspects of their needs, with the strongest comments in relation to lower levels of the hierarchy;
- newly qualified teachers who had worked as pairs during training remained very positive about their experience and felt better prepared, more open to new ideas and viewed themselves as working in a more collaborative manner than some of their colleagues.

The coordinator felt that the mutual emotional support provided was most valuable during the first practicum, as this was their first experience of school and there were inevitable worries about how they might cope. Such psychological support remained important in the second practicum but it was felt that at this point the students could start to work together towards

reaching their higher level goals. The school is now committed to further work, including starting the year with an in-service session for mentors and students and developing a framework for working with pairs of student teachers at different stages of their practice. There are also plans to link to other school development initiatives, as well as drawing on frameworks from other partnerships involved in research into pairing.

The coordinator commented further on the impact of the students on the school. It was noted that there was a positive benefit for departments in terms of the development of teaching strategies and resources. The effect of employing students used to working in collaborative ways was also highly valued and thought to contribute to a positive learning culture in the school. This case study accords well with the earlier arguments in the article regarding the contribution that paired placements might make to school improvement, through both modeling collaborative practice during training and preparing newly qualified teachers to work in this way in the future.

### **Conclusions**

In all the studies referenced here, whether it is the specific UK research that provides the main focus or other international studies, the majority of the student teachers perceive peer learning as providing positive overall benefits. However, the analysis of needs shows that in some cases this benefit is limited to the emotional and psychological levels of Maslow's hierarchy. It is only where universities and/or schools and/or student teachers have planned to take advantage of other collaborative opportunities that higher level gains have also been made and in many partnerships training for this has been very limited. The case studies show that the potential for further gains is high and most, if not all, of the schools and universities involved in the research in England are seeking to develop their use of paired placements further.

Mentors' reactions to pairing remain mixed. However, it seems clear that many of the concerns which surround pairing (e.g. the importance of personalities) can be transcended by an effective model of professional collaborative practice. The culture of the school and the attitude of the mentor are clearly crucial in making pairing 'work' in such circumstances. Where pairing works well (for whatever reason) students and mentors speak in glowing terms of the benefits for all concerned. It is also clear that many mentors and students who have not been prepared for

pairing do see its potential for providing a richer experience of learning to teach. In many ways this makes it surprising that there has, as yet, been relatively little investment in preparing for the arrangement in many partnerships. This lack of preparation was criticized by many students in the research: 'if you are placed in a pair then you should work as a pair'! Thus whilst many tacit assumptions had been made about the effectiveness of pairing and collaborative practice, these had yet to be promoted systematically. Similarly the pupils were rarely prepared for the paired team teaching in their classes.

This article has reported on research that has examined a large number of collaborative practices across a number of partnerships in the UK. It has found that collaborative practice can lead to interactions which help promote students' learning. Research in other countries has also indicated that gains can be made. Thus a study of the collaborative practice of two mathematics student teachers in the US notes that once placed in a situation where the teachers need to explain their choice of pedagogy and practice, greater understanding of the learning and teaching issues may arise (Manouchehri, 2002). Further studies from the US indicate that mentors working with students in pairs felt that they 'were better able to take risks; developed richer, more interesting and varied lessons; and were able to be more helpful to children' (Bullough et al, 2003). They were also thought to learn more quickly. In Canada there has also been work focusing on the use of 'cross-race dyads' in learning to teach (Solomon, 2000). This work shows that pairing may also be a vehicle for preparing students more effectively for a multicultural society. Issues in relation to the selection of the students in the pair have not been a major consideration of this article but such work indicated that there are other potential benefits to explore.

In summary, whilst there is a need for further research into such placements, it does seem likely that:

- Peer placements provide important emotional and psychological support for student teachers, which may make them less likely to leave during their training.
- Collaborative practices during placements can help students meet higher level needs. Thus students working in pairs may, on average, reach higher standards.



- Students in paired placements may have a positive impact on collaborative practice within a department during their training.
- Teachers who have trained in paired arrangements may be more likely to operate in a collaborative manner in the future, hence helping to develop collegial practices in schools. This may then help with the retention of teachers in the profession and school improvement.
- Where university tutors and mentors work together in training for work with pairs, more benefits accrue
- Training with pairs of students is more efficient and cost-effective.

### **The Future**

The discussion shows that there are potential benefits from the use of peer learning in the practicum. However, it is dangerous to draw too many conclusions from the research presented here and those offered above must be treated tentatively. Thus it is important to recognise that where the most effective practice has been identified, it has tended to be in schools where there has already been a strong commitment to collaboration or where extra funding has been provided for short-term projects. Further, the evidence shows that most mentors in most schools have very little time put aside to work with student teachers and in many cases university-based faculty tutors too are under pressure to reduce their time spent directly in working on partnership. In such circumstances it is little surprise that training for working with pairs of students is so limited. It was also apparent from the UK research that many tutors and mentors working in a highly collaborative manner were giving far more of their time than indicated through the course structures or any rewards or dispensations they received. In the words of one coordinator: 'I rely mainly on the goodwill of my mentors to make this work'.

It is important to address this resource issue if some of the possible benefits of collaborative work are to be had. The research does show that gains can be made through developing the collaborative practice of pairs of students at current funding levels and there are cost benefits and efficiencies to be had in working in this way. However, many tutors, mentors and coordinators feel they need more time to work with students if they are to have the impact that is desired. Thus in considering collaborative strategies it is the logistics that are raised by mentors making

little use of collaboration, rather than any philosophical opposition to such approaches. (See also the discussion of work intensification in HALL, THIS ISSUE). Phrases such as ‘if only I had time’ or ‘in an ideal world’ have been commonplace in interviews. Such resource issues need to be addressed if some of the higher level benefits which might result from paired placements are to be achieved.

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**Appendix 1: A Hierarchy of Collaborative / Peer / Paired Learning for Initial Teacher Education based on Maslow's Hierarchy of Needs**

<b>Hierarchy of Need</b>	<b>Type of collaborative learning</b>	<b>Purpose</b>	<b>Activities</b>
<b>Understanding and knowledge</b>	'partner' mode – partners in professional development, critical friends making judgements and suggestions for development, sharing knowledge and understanding	Professional learning and development	Mutual observation, collaborative teaching, discussion, feedback, joint planning, joint INSET, joint research and problem solving
<b>Self-actualisation</b>	'appraiser' mode – facilitating the identification of triumphs and tragedies, sharing knowledge and undertaking		
<b>Self-esteem</b>	'counsellor' mode – giving psychological support e.g. encouragement, warm appreciation, in relation to triumphs and tragedies	Psychological support	Regular and more formalised support and meetings
<b>Love and belonging</b>	'buddy' mode – providing a friendly ear to listen to hopes and fears		

<b>Safety</b>	'inductor' and 'instructor' modes	Understanding the 'basics' of a school	Informal support and meetings
<b>Physiological</b>	– sharing basic knowledge e.g. procedures, locations etc.	/ scheme /programme	

The hierarchy is an adaptation of Field and Philpott's (2001) appropriation of Maslow (1970).

## **Appendix 2: Forms of Collaborative Practice as a Pair of Student Teachers**

1. Student teachers observing the mentor teaching.
2. Student teachers observing other teachers teaching in their own subject area.
3. Student teachers observing other teachers teaching outside their own subject area.
4. Student teachers observing each other teaching.
5. Student teachers and mentor observing a lesson together.
6. Student teachers collaboratively teaching together with the mentor.
7. Student teachers collaboratively teaching with other teachers.
8. Pairs of student teachers planning collaboratively
9. Pairs of student teachers collaboratively teaching
10. Pairs of student teachers planning and preparing lessons jointly with the mentor
11. Mentor discussing a lesson plan written by the student teachers
12. Student teachers being observed team teaching by the mentor
13. Student teachers being observed team teaching by other teachers
14. Student teachers discussing together a video-recorded lesson of each other
15. Student teachers discussing together a video-recorded lesson of a mentor or other teacher
16. Student teachers discussing a video recorded lesson of each other together with the mentor
17. Student teachers discussing a video recorded lesson of each other together with another teacher
18. Mentor reviewing progress and setting targets together with the student teachers
19. Other teachers reviewing progress and setting targets together with the student teachers
20. Mentor working together with a pair of student teachers with assessing, recording and reporting on pupils' work.
21. Other teachers working together with a pair of student teachers with assessing, recording and reporting on pupils' work
22. A pair of student teachers working together on developing extra-curricular activities or the use of other teaching contexts
23. A pair of student teachers working together with the mentor on developing extra-curricular activities or the use of other teaching contexts
24. A pair of student teachers working together with other teachers on developing extra-curricular activities or the use of other teaching contexts
25. Pairs collaborating on resource development
26. Pairs collaborating with the mentor on resource development
27. Pairs collaborating with other teachers on resource development